



**US Army Corps  
of Engineers®**  
Engineer Research and  
Development Center

# Compressed ARC Digitized Raster Graphics (CADRG)

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## Description and Background

The National Imagery and Mapping Agency (NIMA) CADRG product is the Joint Services' standard map background product. CADRG is produced in multiple scales in support of systems with map background display, coordinate selection, and perspective view generation requirements.

## Key Capabilities

**Color Resolution:** CADRG is a compressed version of ARC Digitized Raster Graphics (ADRG). CADRG may be decompressed for eight-bit (216 colors) display. Thirty-two and 16 entry color tables also are included.

**Content:** CADRG includes scanned versions of the following standard hard-copy products: Global Navigation and Planning Charts (GNC, 1:5,000,000-scale), Jet Navigation Charts (JNC, 1:2,000,000-scale), Operational Navigation Charts (ONC, 1:1,000,000-scale), Tactical Pilotage Charts (TPC, 1:500,000-scale), Joint Operations Graphics-Air (JOG-Air, 1:250,000-scale), Topographic Line Maps (TLM, 1:50,000-scale and 1:100,000-scale), City Graphics (variable scales from 1:5,000-scale to 1:15,000-scale).

**Structure and Format:** CADRG is Raster Product Format and National Imagery Transmission Format Standard (NITFS)-compliant.

**Datums:** The horizontal datum is World Geodetic System 1984 (WGS 84)

**Media:** Distributed media is CD-ROM, implementing the ISO 9660 volume and file standard.

**Standard File Size:** CADRG achieves a nominal compression of 55:1 over ADRG. A typical map/chart would require 1.5 megabytes for storage. CADRG has a data density of 169 pixels/inch at 1:1 display scale.

**Accuracy:** Same as hard-copy map/chart products.

**Packaging:** CADRG is packaged in a Land Combat version for Army. The Land Combat version includes 1:1M, 1:250K, 1:100K, 1:50K, and City Graphics. Additional packages are 1:5M and 1:2M, 1:1M and 1:500K and 1:250K only.

## Current Status

NIMA has complete all production of the 1:5M/1:2M packages (2) and the 1:1M/1:500K packages (17). 1:250K packages have been produced for all areas where ADRG was available. Land combat packages have been produced for high interest areas.

## Point of Contact

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